14–16 years

Quantitative chemistry

Unscrambling definitions

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Unscrambled definitions

A **limiting reactant** is completely used up in a chemical reaction, which therefore limits the amount of products that can be formed.

Excess reactant is not used up in a chemical reaction because another reactant has run out first.

Atom economy is the mass of the desired product given as a percentage of the total mass of the reactants, in a balanced symbol equation.

Percentage composition is the relative mass of the atom(s) of one element in a compound, given as a percentage of the relative formula mass.

A **mole (mol)** is the unit of amount of substance, where one mole is the amount containing 6.02×10^{23} (Avogadro's number) atoms, molecules or formula units.

Avogadro's number is the number 6.02×10^{23}, which is the number of atoms, molecules or formula units in one mole of the substance.

The **end point** in a titration is the exact volume added when the indicator changes colour.

The **titre** is the volume of solution added from the burette that is needed to reach the end point.

Connection completion

In a titration, a neutralisation reaction occurs, and the end point is determined _____ a colour change in the indicator. The titre allows us to calculate the number of moles of the chemical in the burette which _____ enables us to calculate the number of moles in the solution of unknown concentration. If, _____, the end point is overshot, there will excess reactant remaining and the titre reading will be incorrect.

A	despite	thus	additionally
B	through	additionally	therefore
C	by	furthermore	despite this
D	as a result of	consequently	however

Completed sentences

In a titration, a neutralisation reaction occurs, and the end point is determined **as a result of** a colour change in the indicator. The titre allows us to calculate the number of moles of the chemical in the burette which **consequently** enables us to calculate the number of moles in the solution of unknown concentration. If, **however**, the end point is overshot, there will excess reactant remaining and the titre reading will be incorrect.